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(54) An efficient method for fabricating organic light emitting diodes

(57) A method of fabricating an organic light emitting diode (OLED) display device (10; 62; 96; 110) utilizes gravure coating techniques to deposit a desired material during at least one step of a fabrication process of forming the OLED display device. Preferably, layers (22; 64, 66 and 68; 82, 83 and 84; 98; 112) of an OLED are formed on a web (41) of transparent flexible substrate (12), so that web processing may be used. A reverse gravure coating technique is preferably utilized to deposit uniform layer (22; 82, 83 and 84; 112) of selected material onto the web. Using the reverse gravure coating technique, a thin layer of organic electroluminescent (EL) material (22), a passivation layer (112) and/or a photoresist layer (84) can be formed on the web. A forward gravure coating technique is utilized to deposit, or "print", a patterned layer of selected material onto the web. Using the forward gravure coating technique, a layer of patterned color EL materials (64; 66 and 68) for color OLED display devices can be formed by printing a number of organic EL materials onto the web. In addition, "bus lines" (98) to augment the conductivity of anodes (14, 16, 18 and 20) in an OLED display device can be formed using the forward gravure coating technique by printing thin lines composed of high conductive material.

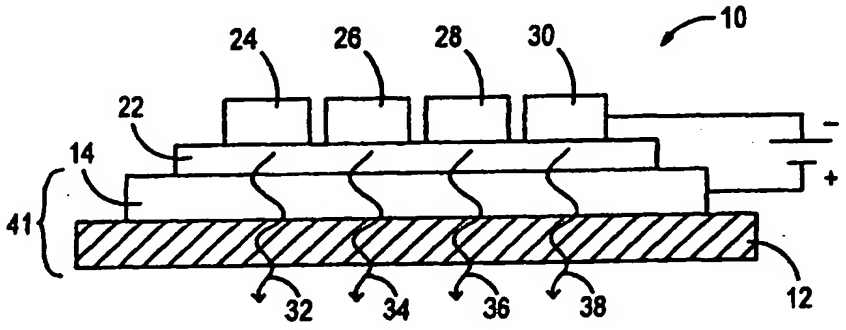

FIG. 1

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EUROPEAN SEARCH REPORT

Application Number
EP 99 11 3164

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
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TECHNICAL FIELDS SEARCHED (Int.Cl.7)
H01L
H05B

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	25 November 2003	Faou, M

CATEGORY OF CITED DOCUMENTS

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82